

(ii) *Highway carbon-related exhaust emissions.*

$$\text{HighwayCREE} = 0.905 \times (\text{StartCREE} + \text{RunningCREE})$$

Where:

(A) StartCREE =

$$0.33 \times \left(\frac{(0.76 \times \text{StartCREE}_{75} + 0.24 \times \text{StartCREE}_{20})}{60} \right)$$

Where:

$$\text{Start CREE}_{75} = 7.5 \times (\text{Bag}^{1/2}\text{CREE}_{75} - \text{Bag}^{3/4}\text{CREE}_{75})$$

and

$$\text{Start CREE}_{20} = 3.6 \times (\text{Bag}^1\text{CREE}_{20} - \text{Bag}^{3/4}\text{CREE}_{20})$$

(B) RunningCREE =

$$1.007 \times [(0.79 \times \text{US06 Highway CREE}) + (0.21 \times \text{HFET CREE})] + 0.045 \times [\text{SC03 CREE} - \text{Bag}^{3/4}\text{CREE}]$$

Where:

US06 Highway CREE = carbon-related exhaust emissions in grams per mile over the city portion of the US06 test, and

SC03 CREE = carbon-related exhaust emissions in gram per mile over the SC03 test, and

Bag Y FE₂₀ = the carbon-related exhaust emissions in grams per mile of fuel during Bag 1 or Bag 3 of the 20 °F FTP test, and

Bag X/Y FE₇₅ = carbon-related exhaust emissions in grams per mile of fuel during phases 1 and 2 or phases 3 and 4 of the FTP test conducted at an ambient temperature of 75 °F.

[71 FR 77938, Dec. 27, 2006; 72 FR 20403, Apr. 24, 2007, as amended at 74 FR 61550, Nov. 25, 2009; 75 FR 25709, May 7, 2010]

§ 600.115-08 Criteria for determining the fuel economy label calculation method for 2011 and later model year vehicles.

This section provides the criteria to determine if the derived 5-cycle method for determining fuel economy label values, as specified in § 600.210-08 (a)(2) or (b)(2), as applicable, may be used to determine label values for 2011 and later model year vehicles. Separate criteria apply to city and highway fuel

economy for each test group. The provisions of this section are optional. If this option is not chosen, or if the criteria provided in this section are not met, fuel economy label values for 2011 and later model year vehicles must be determined according to the vehicle-specific 5-cycle method specified in § 600.210-08(a)(1) or (b)(1), as applicable. However, dedicated alternative-fuel vehicles, dual fuel vehicles when operating on alternative fuel, and MDPVs may use the derived 5-cycle method for determining fuel economy labels for 2011 and later model years whether or not the criteria provided in this section are met.

(a) *City fuel economy criterion.* (1) For each test group certified for emission compliance under § 86.1848-01 of this chapter, the FTP, HFET, US06, SC03 and Cold FTP tests determined to be official under § 86.1835-01 of this chapter are used to calculate the vehicle-specific 5-cycle city fuel economy which is then compared to the derived 5-cycle city fuel economy, as follows:

(i) The vehicle-specific 5-cycle city fuel economy from the official FTP, HFET, US06, SC03 and Cold FTP tests for the test group is determined according to the provisions of § 600.114-08(a) or (c) and rounded to the nearest one tenth of a mile per gallon.

(ii) Using the same FTP data as used in paragraph (a)(1)(i) of this section, the corresponding derived 5-cycle city fuel economy is calculated according to the following equation:

$$\text{Derived 5-cycle city fuel economy} = \frac{1}{\left\{ \text{City Intercept} \right\} + \frac{\left\{ \text{City Slope} \right\}}{\text{FTP FE}}}$$

Where:

City Intercept = Intercept determined by the Administrator. *See* § 600.210-08(a)(2)(iii).

City Slope = Slope determined by the Administrator. *See* § 600.210-08(a)(2)(iii).

FTP FE = the FTP-based city fuel economy from the official test used for certification compliance, determined under § 600.113-08(a), rounded to the nearest tenth.

(2) The derived 5-cycle fuel economy value determined in paragraph (a)(1)(ii) of this section is multiplied by 0.96 and rounded to the nearest one tenth of a mile per gallon.

(3) If the vehicle-specific 5-cycle city fuel economy determined in paragraph (a)(1)(i) of this section is greater than or equal to the value determined in paragraph (a)(2) of this section, then the manufacturer may base the city fuel economy estimates for the model types covered by the test group on the derived 5-cycle method specified in § 600.210-08(a)(2) or (b)(2), as applicable.

(b) *Highway fuel economy criterion.* The determination for highway fuel economy depends upon the outcome of the determination for city fuel economy in paragraph (a)(3) of this section for each test group.

(1) If the city determination for a test group made in paragraph (a)(3) of this section does not allow the use of the derived 5-cycle method, then the highway fuel economy values for all

model types represented by the test group are likewise not allowed to be determined using the derived 5-cycle method, and must be determined according to the vehicle-specific 5-cycle method specified in § 600.210-08(a)(1) or (b)(1), as applicable.

(2) If the city determination made in paragraph (a)(3) of this section allows the use of the derived 5-cycle method, a separate determination is made for the highway fuel economy labeling method as follows:

(i) For each test group certified for emission compliance under § 86.1848-01 of this chapter, the FTP, HFET, US06, SC03 and Cold FTP tests determined to be official under § 86.1835-01 of this chapter are used to calculate the vehicle-specific 5-cycle highway fuel economy, which is then compared to the derived 5-cycle highway fuel economy, as follows:

(A) The vehicle-specific 5-cycle highway fuel economy from the official FTP, HFET, US06, SC03 and Cold FTP tests for the test group is determined according to the provisions of § 600.114-08(b)(1) and rounded to the nearest one tenth of a mile per gallon.

(B) Using the same HFET data as used in paragraph (b)(2)(i)(A) of this section, the corresponding derived 5-cycle highway fuel economy is calculated using the following equation:

$$\text{Derived 5-cycle highway fuel economy} = \frac{1}{\left\{ \text{Highway Intercept} \right\} + \frac{\left\{ \text{Highway Slope} \right\}}{\text{HFET FE}}}$$

Where:

Highway Intercept = Intercept determined by the Administrator. *See* § 600.210-08(a)(2)(iii).

Highway Slope = Slope determined by the Administrator. *See* § 600.210-08(a)(2)(iii).

HFET FE = the HFET-based highway fuel economy determined under § 600.113-08(b), rounded to the nearest tenth.

(ii) The derived 5-cycle highway fuel economy calculated in paragraph (b)(2)(i)(B) of this section is multiplied

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by 0.95 and rounded to the nearest one tenth of a mile per gallon.

(iii) (A) If the vehicle-specific 5-cycle highway fuel economy of the vehicle tested in paragraph (b)(2)(i)(A) of this section is greater than or equal to the value determined in paragraph (b)(2)(ii) of this section, then the manufacturer may base the highway fuel economy estimates for the model types covered by the test group on the derived 5-cycle method specified in § 600.210–08(a)(2) or (b)(2), as applicable.

(B) If the vehicle-specific 5-cycle highway fuel economy determined in paragraph (b)(2)(i)(A) of this section is less than the value determined in paragraph (b)(2)(ii) of this section, the manufacturer may determine the highway fuel economy for the model types covered by the test group on the modified 5-cycle equation specified in § 600.114–08(b)(2).

(c) The manufacturer will apply the criteria in paragraph (a) and (b) of this section to every test group for each model year.

(d) The tests used to make the evaluations in paragraphs (a) and (b) of this section will be the official tests used to determine compliance with emission standards under § 86.1835–01(c). Adjustments and/or substitutions to the official test data may be made with advance approval of the Administrator.

[71 FR 77943, Dec. 27, 2006, as amended at 74 FR 61551, Nov. 25, 2009]

Subpart C—Procedures for Calculating Fuel Economy and Carbon-Related Exhaust Emission Values for 1977 and Later Model Year Automobiles

§ 600.201–08 General applicability.

(a) The provisions of this subpart are applicable to 2008 and later model year automobiles, except medium duty passenger vehicles, manufactured on or after January 26, 2007, and to 2011 and later model year medium-duty passenger vehicles. All 2008 automobiles manufactured prior to January 26, 2007 may optionally comply with the provisions of this subpart.

[71 FR 77944, Dec. 27, 2006]

§ 600.201–12 General applicability.

The provisions of this subpart are applicable to 2012 and later model year automobiles and to the manufacturers of 2012 and later model year automobiles.

[75 FR 25711, May 7, 2010]

§ 600.201–86 General applicability.

(a) The provisions of this subpart are applicable to 1986 and later model year gasoline-fueled and diesel automobiles.

[49 FR 13849, Apr. 6, 1984]

§ 600.201–93 General applicability.

The provisions of this subpart are applicable to 1993 and later model year gasoline-fueled, diesel-fueled, alcohol-fueled, natural gas-fueled, alcohol dual fuel, and natural gas dual fuel automobiles.

[59 FR 39655, Aug. 3, 1994]

§ 600.202–77 Definitions.

The definitions in § 600.002 apply to this subpart.

§ 600.203–77 Abbreviations.

The abbreviations in § 600.003 apply to this subpart.

§ 600.204–77 Section numbering, construction.

The section numbering system set forth in § 600.004 applies to this subpart.

§ 600.205–77 Recordkeeping.

The recordkeeping requirements set forth in § 600.005 apply to this subpart.

§ 600.206–08 Calculation and use of FTP-based and HFET-based fuel economy values for vehicle configurations.

(a) Fuel economy values determined for each vehicle under § 600.113(a) and (b) and as approved in § 600.008–08 (c), are used to determine FTP-based city, HFET-based highway, and combined FTP/Highway-based fuel economy values for each vehicle configuration for which data are available.

(1) If only one set of FTP-based city and HFET-based highway fuel economy values is accepted for a vehicle configuration, these values, rounded to the